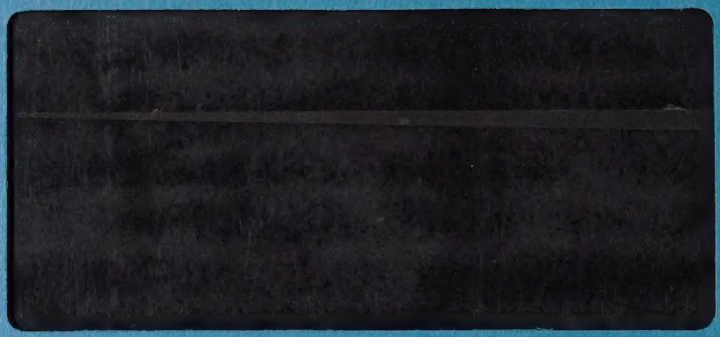
OPERATION AND INSTRUCTION MANUAL
FOR
STEP ATTENUATOR MODEL PSA-25
OPTION FOR _____SYSTEM

FAIRCHILD
ELECTRO-METRICS
CORPORATION

MP MASTER
MA30044



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September 1970

Fairchild/Electro-Metrics Corporation
100 Church Street
Amsterdam, New York 12010

ADDENDUM
Operation and Instruction Manual
Step Attenuator Model PSA- 25
Option For _____System

1.0 INTRODUCTION

The Programmable Step Attenuator Model PSA - 25 adds considerably to the versatility of the Spectrum Surveillance System by improving the sensitivity-dynamic range relationship and reducing overload conditions.

2.0 OPERATION

When the Programmable Attenuator is incorporated in the system, the RF portion of the EMC-25 input attenuator is by-passed and the EMC-25 attenuator controls only the IF attenuation. Overall IF gain is then adjusted to provide best dynamic range for the Y-axis while the Programmable Attenuator inserts the required amounts of pure RF attenuation to optimize the dynamic range of the receiver while providing the required signal level reduction.

Thus, with the PSA - 25 in the system, the operator achieves the best of two conditions simultaneously, maximum sensitivity and maximum dynamic range for X-Y Plotting when the EMC-25 input attenuator and the Programmable Attenuator are both in the 0 dB positions. In substance, the noise level is literally moved to a lower position on the meter and on any related X-Y plot.

The second major advantage of the optional Programmable Attenuator is the facility to automatically add different levels of attenuation as required on a band by band basis as the system sweeps through its frequency range of 14 kHz to 1 GHz. (Attenuation is handled separately on the EMC-10 for 20 Hz to 14 kHz.)

Programmable Step Attenuator Parts List (D-4635)

Description	Unit Qty.	Vendor Part No.	Vendor
P. C. Edge Connector	2	480110-2	AMP, Inc.
Thumbwheel Switch	1	C-4741-1	F/EMC
Thumbwheel Switch	1	C-4741-2	F/EMC
Neon Light	6	BNF-2 Clear	Alco Elec. Prod.
Toggle Switch	1	7505K4	Cutler-Hammer
Barrier Strip	1	7-140	Cinch-Jones
Barrier Strip	1	19-140	Cinch-Jones
Mounting Bracker, P. C. Board Socket	1	B4622	F/EMC
Switching Board, P. C.	1	D4625	F/EMC
0 dB Pad	1	D-4725	F/EMC
20 dB Pad	1	D-4726	F/EMC
40 dB Pad	1	D-4727	F/EMC
60 dB Pad	1	D-4728	F/EMC
80 dB Pad	1	D-4729	F/EMC
Terminations	2		
Coax Switch	1	1P6T-325-11850-3	Amphenol

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